Agenda Item 3.
Linking Best Available Science and Decision Making

Delta Plan Interagency Implementation Committee Meeting #6

November 14, 2016

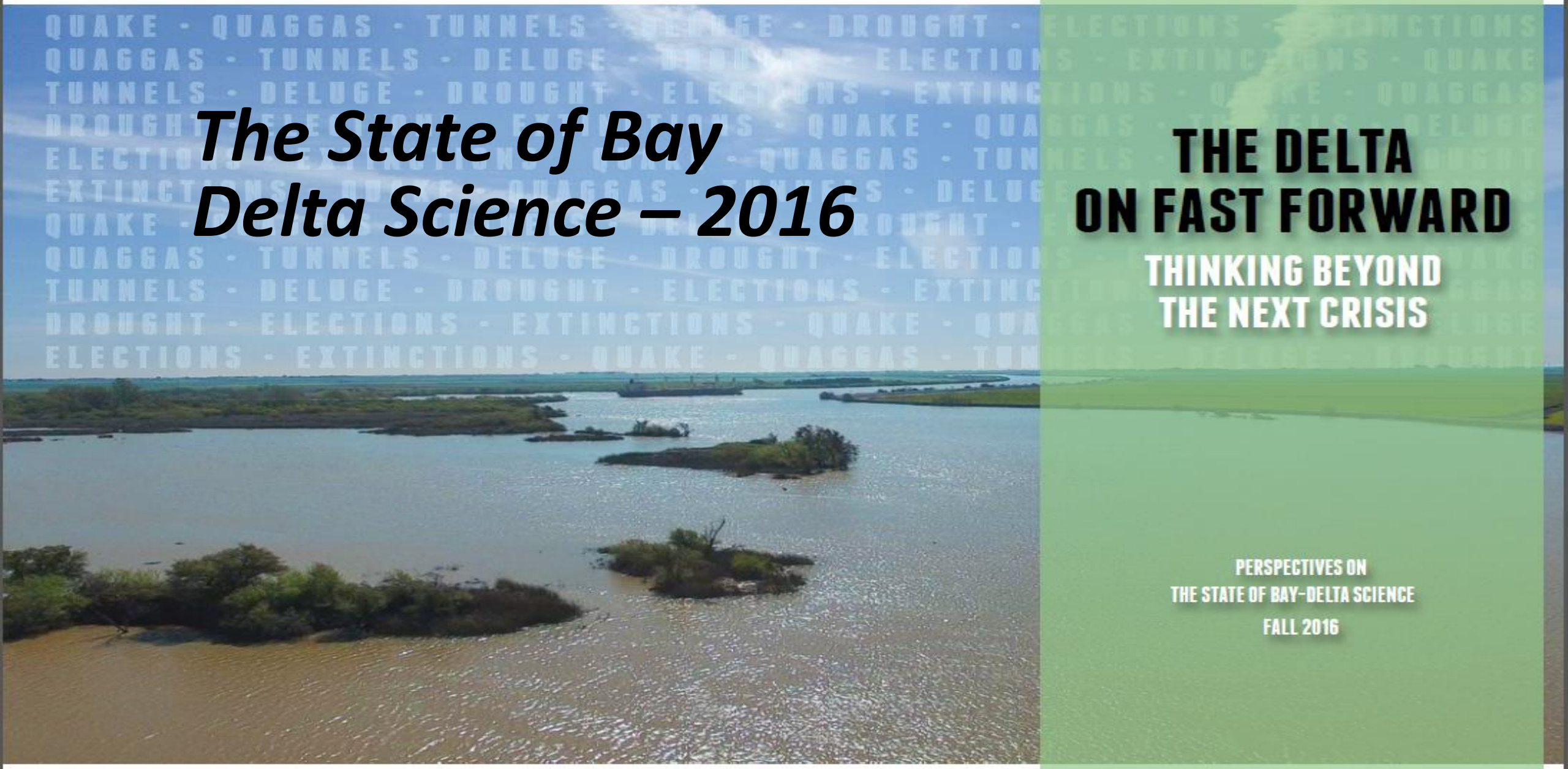
Panelists:

Darcy Austin, Delta Stewardship Council, Delta Science Program

Michael Healey, University of British Columbia

Letitia Grenier, San Francisco Estuary Institute

Carl Wilcox, California Department of Fish and Wildlife



The State of Bay Delta Science – 2016

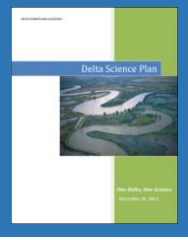
THE DELTA ON FAST FORWARD

THINKING BEYOND THE NEXT CRISIS

PERSPECTIVES ON
THE STATE OF BAY-DELTA SCIENCE
FALL 2016

One Delta, One Science

Delta Science Plan



Shared vision for Delta science

DELTA SCIENCE STRATEGY

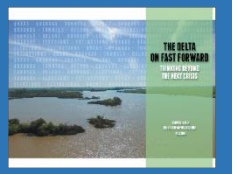
Science Action Agenda

Collaborative road map for science

In progress (to be completed 2017)

The State of the Bay-Delta Science, 2016

Synthesis of current scientific knowledge



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The State of Bay-Delta Science: Synthesis

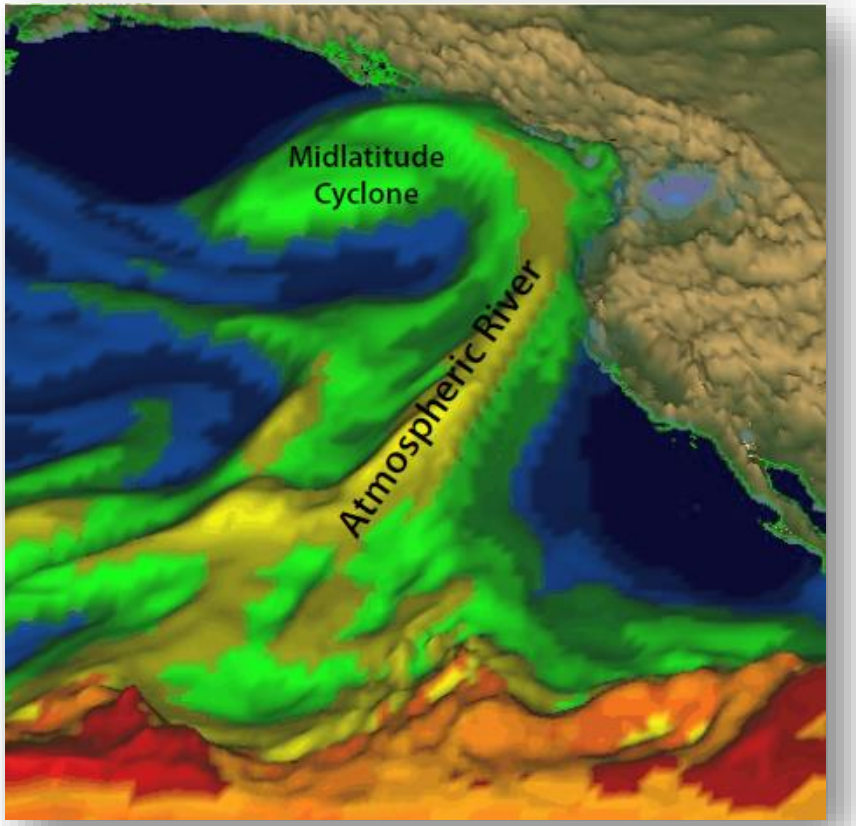
- **What we've learned since 2008 (*SBDS, 2016* Perspectives)**
- **New tools for science**
- **Priority Actions**

Yolo Bypass Wildlife Area. Photo: Darcy Austin

What we've learned since 2008

SBDS, 2016 Perspectives

1. **Nutrients are important**
2. **Delta waters are contain a complex cocktail of contaminants**
3. **Aquatic food webs no longer sustain native species**
4. **Species declines are a result of multiple stressors**
5. **Future water management will be driven more by extreme events**
6. **Success of local restoration is dependent on what happens in adjacent habitats**
7. **The situation for native species is dire**



Atmospheric River on the US West Coast. Image: Adapted from NOAA

New Tools For Science

USGS scientists preparing to deploy a new water quality sensor.
Photo: Bryan Downing, USGS

1. Miniaturized acoustic tags
2. New remote sensors
3. Advances in 2- and 3-D modeling
4. Remote sensing tools
5. Improved downscaling of global climate predictions
6. New analytic tools

Forward-thinking actions

- Think long term
- Incorporate exploratory and forward-looking science
- Widen science career paths
- Plan for variability and extremes
- Adapt to take advantage of the value of invasive species
- Explore alternatives to conservation in place
- Invest in development of models
- Include “Delta as an *Evolving* Place”